Date:

AMENDMENT TO THE FACT SHEET AT THE TIME OF FINAL PERMIT ISSUANCE

NPDES PERMIT NUMBER: GMG460000

1. Changes in Permit from Draft Permit to Final Permit Stage:

General Changes

Based on a review of Discharge Monitoring Reports (DMRs) indicating few violations over the term of the previous general permit, the frequency for submittal of DMRs was changed from monthly to quarterly. For individual permittees, if a failure to comply with any permit limit occurs, the DMR submittal frequency for that non-compliance, facility (i.e, well) shall be changed from quarterly to monthly, until such time that the facility returns to full compliance for all parameters.

Also in lieu of submitting full toxicity laboratory reports with each DMR, only the cover sheets for the toxicity laboratory reports must be submitted, unless results show that a toxicity test failure occurred. If a failure occurs, the entire toxicity report must be submitted with the DMR.

Specific Changes

Cover page: The National Pollutant Discharge Elimination System (NPDES) General Permit number was changed from GMG280000 to GMG460000 in order to differentiate offshore oil and gas operators covered under the Environmental Protection Agency (EPA) Region 6 general permit from operators covered under the Region 4 general permit.

Part I.A.2 - *Operations Excluded*: The language was modified to clarify that non-operational facilities will not be granted coverage until either a new Minerals Management Service (MMS) approved Exploration Plan (EP), Development Production Plan (DPP) or Development Operational Coordination Document (DOCD) or documentation that MMS previously approved an EP, DPP or DOCD that has been submitted to EPA. The revised language also clarifies that coverage will also not be granted to operational leases within 1000 meters of an Area of Biological Concern, nor within a 1000 meters of a Federally Designated Dredged Material Disposal Site.

Part I.A.3 - General Permit Applicability: This section was modified to include the following language, per 40 CFR § 122.28, which was inadvertently omitted from the permit:

"h. Other relevant factors (i.e., permittee was in non-compliance status with an individual NPDES permit for offshore oil and gas operations)."

Part I.A.4.- *Notification Requirements (Existing and New Sources)*: The language was revised to update MMS Notice to Leasee documents and to include additional necessary information for determining suitability for permit coverage. New requirements are:

"m. a copy of MMS's authorization/Notice to Drill Permit (e.g, a copy of an MMS signed and approved Application for Permit to Drill (APD) will meet this requirement);

n. information on any toxic compounds not previously approved by EPA-Headquarters. See Part I.C.6;

o. For facilities installed after March 4, 1993, the Notice of Intent (NOI) must also identify that the facility is a new source and state the date on which the facility's protection from more stringent new source performance standards or technology-based limitations ends. That date is the soonest of ten years from the date that construction is completed, ten years from the date the source begins to discharge process or non-construction related wastewater, or the end of the period of depreciation or amortization of the facility for the purposes of Section 167 or 169 (or both) of the Internal Revenue Code of 1954;

p. the general permit coverage number for the previous general permit (GMG280000) and/or the individual NPDES permit number of any individual permit issued by EPA Region 4 for this activity;

q. For production platforms, indicate the estimated distance (in meters) from the platform to the nearest Federally Designated Dredged Material Ocean Disposal Site;

r. Has EPA-Region 4 identified any permit violations under the previous Region 4 General Permit (NPDES No. GMG280000 issued October 16, 1998)? Yes or No; and

s. Has EPA-Region 4 identified any permit violations under a previous individual NPDES permit for offshore oil and gas operations in Region 4? Yes or No.

Operators with coverage under the previous general permit that was administratively continued (i.e., a request for continued coverage was received prior to October 31, 2003) must submit a new NOI to be covered under this permit no later than 30 days from the effective date of this permit. All facility owners for newly acquired leases must submit a NOI prior to the date of discharge and no later than 21 days prior to the expiration date of this permit."

Part I.A.4, second paragraph: The language was modified to allow coverage prior to written notification from EPA. The sentence, "EPA will act on the NOI in a reasonable period of time." was replaced with, "The effective date of coverage will be the postmarked date of the NOI, or if the postmarked date is illegible, the effective date of coverage will be two days prior to the receipt date of the NOI. EPA will notify the applicant within 21 days of the receipt date regarding the new permit coverage number(s) and the effective date of permit coverage. If an NOI is determined to be incomplete, EPA will notify the operator within 21 days regarding any deficiencies, and possible termination of coverage."

Part I.A.6 - *Non-Operational Facilities*: The language was reworded for clarity, as follows: "Non-operational or planned facilities or wells are only eligible for coverage under this general permit after documentation has been submitted to EPA showing that MMS had previously approved an EP, DOCD or DPP, or a new EP, DOCD or DPP is submitted to EPA."

Part I.A.8 - *Intent to be Covered by a Subsequent Issued Permit*: The following language was inserted after the first sentence in order clarify that permitees have until the expiration date of the permit to request coverage be administratively continued, if necessary:

> "(Due to this being a general permit, this stipulation supersedes the 180-day time frame in Part II.D.11)."

Part I.A.9 - *Transfer of General Permit Coverage*: This is a new provision that clarifies the requirements pertaining to transfer of coverage from one operator to another. The provision reads:

> "**9. Transfer of General Permit Coverage**
>
> This permit is not transferable to any entity except after written notice to the Director and subsequent written approval by the Director. The request for transfer shall include the permit coverage number, the OSC (Offshore Continental Shelf) number and lease block name, the name of the existing permittee, name of the operator the coverage is being transferred to, and the projected date the transfer is to become effective. The request must contain a certification statement (see Part II.D.12.d.) and be signed and dated by officials from each operating facility. The Director may require modification or revocation and reissuance of the permit coverage to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act (CWA). (The transfer of permit coverage requirements in this section supercede the "Transfer of Ownership of Control" requirements set forth in Part II.D.3 of this permit.)"

Parts I.B.1.b.ii and I.B.2.d.iv - *Cadmium and Mercury limits in Barite*: EPA test method numbers were updated to include Method 245.5 for mercury and Method 200.7 or 200.8 for cadmium.

Part I.B.1.b.v - *Maximum Hourly Discharge Rate limit for Water-Based Drilling Fluids*: Based on the Best Professional Judgement (BPJ) of the permit writer, an exemption regarding the maximum hourly discharge rate for water-based drilling fluids (WBFs) was added. The

exemption allows operators to omit from the Maximum Hourly Discharge Rate value, that volume of WBFs discharged prior to the installation of the marine riser. WBFs discharged prior to the marine riser are categorized as Miscellaneous Discharges.

Part I.B.1.c.iii - *Oil Content discharge prohibition.* The requirement pertaining to Oil Content was deleted, since it was superfluous. The permit already prohibits the discharge of free oil.

Part I.2.c.i (1) and (2) - *Formation Oil limits for Non-Aqueous-Based Drill Cuttings*: The language in (1) was changed to clarify that "no discharge of formation oil" means no discharge of detectable amounts of formation oil using the Gas Chromatography/Mass Spectrometry (GC/MS) test method in Appendix 5 of 40 CFR Part 435, subpart A. Also, Part I.2.c.i (2) was changed to allow operators the option to analyze Synthetic-Based Drilling Fluids (SBF) cuttings for formation oil during drilling using the Reverse Phase Extraction (RPE) test, or alternatively, the GC/MS test. Both test methods are EPA approved methods for determining the presence of formation oil.

Part I.2.c.ii and Part V.12 - *Drilling Fluid Sediment Toxicity Ratio limit for Non-Aqueous Based Drilling Fluids (NAFs)*: The sample type was changed from "one grab sample" to "up to three tests results from two grab samples" using the following sampling protocol, which is a new provision in Part V.12 developed to reduce variability inherent to the sediment toxicity test.

> "**12. Sampling Protocol for Stock Drilling Fluid Sediment Toxicity Test, Drilling Fluid Sediment Toxicity Test and Biodegradation Rate Test**
>
> Compliance with the 1.0 permit limit shall be based on the ratio of the arithmetic average of up to three test results from two grab samples. The first grab sample must be split into two subparts (e.g., grab1A and grab1B) and analyzed separately. The second grab sample (grab2) shall be a backup sample, which shall be retained following proper storage and handling procedures. The second grab sample will be collected within 15 minutes of the first grab sample, and in the case of base fluid testing, will be from the same production lot. Permittees shall show compliance based on results from grab1A, or from the ratio of the arithmetic average of grab1A, grab1B, and if necessary, grab 2. All test results obtained shall be submitted with the DMR and all ratios shall be rounded to the nearest tenths.
>
> All test results shall be generated as follows:
>
> a. The 10-day stock base fluid toxicity test results consist of individual stock base fluid LC_{50}s and individual reference fluid LC_{50}s (paired results). The arithmetic average of the LC_{50} for the test fluid sample(s) will be compared to determine compliance with the 1.0 ratio permit limit.
>
> b. The stock base fluid biodegradation test results consist of individual stock base fluid cumulative gas production (ml) and individual reference fluid cumulative gas production (ml) tests (paired results). The arithmetic average of the cumulative gas production (ml) for the test fluid samples(s) will be compared against the arithmetic average of the cumulative gas production (ml) of the reference fluid sample(s) to determine compliance with the 1.0 ratio permit limit.

c. The 4-day drilling fluid mud toxicity test results consist of the individual field mud LC_{50}s and individual reference mud LC_{50}s (paired results). The arithmetic average of the LC_{50} for the field mud sample(s) will be compared against the arithmetic average of the LC_{50} of the reference mud sample(s) to determine compliance with the 1.0 ratio permit limit."

Part I.2.d.ii - *Stock Drilling Fluid Sediment Toxicity Ratio limit for NAFs*: The language was clarified to reflect that compliance with the limit for Stock Drilling Fluid Sediment Toxicity Ratio must be demonstrated based on the type of reference base fluid used in the drilling mud. The following equation was added:

"For non-aqueous-based drilling fluids (NAFs) based on 100% C_{12}-C_{14} ester or C_8 ester content, the ratio shall be calculated using:

$$\text{Stock Drilling Fluid Sediment Toxicity Ratio} = \frac{\text{10-day } LC_{50} \text{ of } C_{12}\text{-}C_{14} \text{ ester or } C_8 \text{ ester reference fluid*}}{\text{10-day } LC_{50} \text{ of stock base fluid}}$$

*Chemical Abstract No. 135800-37-2"

Also, the sample type was changed from "one grab sample" to "up to three tests results from two grab samples" using the sampling protocol in Part V.12 in order to account for variability inherent to this test.

Part I.2.d.iii - *Biodegradation Rate limit*. The language was clarified to indicate that compliance with the limit for Biodegradation Rate Ratio can be demonstrated based on the type of reference base fluid used in the drilling mud. The following equation was added:

"For NAFs based on 100% C_{12}-C_{14} ester or C_8 ester, the ratio shall be calculated using:

$$\text{Biodegradation Rate Ratio} = \frac{\text{Cumulative gas production (ml) of } C_{12}\text{-}C_{14} \text{ or } C_8 \text{ ester reference fluid* at 275 days}}{\text{Cumulative gas production (ml) of stock base fluid at 275 days}}$$

*Chemical Abstract No. 135800-37-2"

Also, the sample type was changed from "one grab sample" to "up to three test results from two grab samples" using the sampling protocol in Part V.12 in order to account for variability inherent to this test.

Part I.B.2.d - *Drilling Fluid Stock Limitations for NAFs*: Based on BPJ, an exemption was added that allows operators to forego retesting all stock parameters for fluids that had previously shown to be compliant with the stock limitations.

Part I.B.3.b.i - *Oil and Grease limit for Produced Water*: The sample location was corrected to require sampling after final treatment, which is a more appropriate testing location . The phrase "the nearest accessible location prior to discharge" was changed to "the nearest accessible location after final treatment."

Part I.B.3.b.ii - *Toxicity Requirements for Produced Water*: The definition of limiting permissible concentration (LPC) was changed from "0.1 times the LC_{50}" to "equal to the No Observable Effect Concentration (NOEC)" in order to ensure that the discharge does not cause chronic toxicity. Based on the BPJ of the permit writer, the chronic test is a more appropriate test for determining toxic effects on the receiving waterbody from this wastestream. The NOEC will be calculated using a 7-day chronic toxicity test, using methods published in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms (EPA/821-R-02-014), or the most current edition using new procedures set forth in Part V.13 of the permit.

Part I.B.6.a.iii - *Prohibition on the discharge of Priority Pollutants in Well Treatment, Completion Fluids and Workover Fluids*: The language was changed to clarify that "trace amounts" means " the amount equal to, or less than, the most sensitive method detection limits listed in 40 CFR Part 136 for the applicable parameter."

Part I.B.9.a and b - *Domestic Waste*: The references to prohibitions and limitations for food waste were deleted, since food waste is addressed in Part I.C.4 of the permit.

Part I.B.10 - *Miscellaneous Discharges*: Based on BPJ, the list of named miscellaneous discharges authorized under this permit was expanded to include uncontaminated freshwater, well test fluids, and bulk transfer operations wastewaters. These wastewaters are relatively low volume discharges, which do not contain pollutants of concern.

Part I.B.10.a - *Prohibitions for Miscellaneous Discharges*: The following prohibition was included to clarify that the discharge of contaminated wastewater is not allowed:

> "Discharges of waste streams not mentioned above, including contaminated freshwater, contaminated seawater, contaminated bilge water and contaminated ballast water, are prohibited. ("Contaminated" refers to wastewater that has failed a Visual Sheen Test.)"

Part I.B.10.b - *Free Oil limit for Miscellaneous Discharges*: Based on information in DMRs submitted over the term of the previous general permit, the monitoring frequency for Free Oil was reduced from once per day to once per week. Also, the sampling location was corrected to show that samples must be taken "at the nearest accessible location after final treatment and prior to discharge, or combination with any other wastewaters."

Part I.B.11 - *Miscellaneous Discharges to which Chemicals Have Been Added*: The title was changed to better describe the wastewater category. The previous title, "Miscellaneous Discharges of Freshwater and Seawater Which Have Been Chemically Treated" was changed to

"Miscellaneous Discharges of Freshwater and Seawater In Which Treatment Chemicals Have Been Added, including, but not limited to: 1) excess seawater which permits the continuous operation of fire control and utility lift pumps, 2) excess seawater from pressure maintenance and secondary recovery projects, 3) water released during training of personnel in fire protection, 4) seawater used to pressure test new and existing piping and pipelines, 5) ballast water, 6) water flooding discharges; and 7) once through non-contact cooling water ".

Part I.B.11.c - *Toxicity Requirement for Miscellaneous Discharges to which Chemicals Have Been Added*: The toxicity language was changed to include the use of the No-observed Effect Concentration (NOEC) calculated by conducting a 7-day chronic toxicity test for determining compliance, rather than the 48-hour acute toxicity test. Based on the Best Professional Judgement of the permit writer, the chronic test is more appropriate for determining toxic effects on the receiving waterbody from this wastestream.

Part I.C.4 - *Rubbish, Trash and Other Refuse*: The phrase, "including food wastes, within 12 nautical miles from nearest land" was deleted, since the definition of garbage in Part V was modified to include food waste.

Part I.C.6: The title, "Toxic Compounds (Including Compounds Used in Subsea Operations)" was changed to "Toxic Compounds Used In Subsea Operations," since the permit already contains appropriate toxicity testing requirements for wastestreams other than subsea discharges.

Part I.D.3 - *Seabed Study*: Language was added to clarify the purpose of the study, to require permittees to obtain approval from EPA-Region 4 of the Plan of Study before commencement of the Seabed Study, and to state that EPA may re-open the permit based on study results to include more stringent effluent limitations for SBFs.

Part I.D.5 - *Cooling Water Intake Structure Study*: An exemption from the requirement to conduct a cooling water intake study was included for facilities with a design intake flow rate of less than, or equal to, 5.0 million gallons per day (MGD). Data shows minimal adverse environmental impacts from offshore cooling water intake structures with flows less than 5.0 MGD.

Part I.D.6 - *Preparation of Live-Bottom Survey and Live Bottom Reports Using High Resolution Acoustical Data*: This is a new provision that clarifies how operators are to prepare reports using high resolution acoustical data:

> "Side-scan sonar data in the 100 kHz frequency or 500 kHz frequency if available (use data set providing best image quality) will be used to interpret the presence of hard structure that could potentially provide habitat for marine plant and animal communities. The area included in this interpretation should consist of a rectangular portion of the seabed with the proposed wells in the center. The sides of the rectangle should be at a distance of 1000 meters from the proposed wells. If several wells are proposed throughout the lease block, a separate live-bottom report shall be provided for each.

The live-bottom report shall consist of text and appropriate figures including a brief description of the lease block, proposed project, location of wells and water depth. The report shall contain a section describing the methods used to acquire sonar data including sonar and positioning equipment, frequencies, range setting, lane spacing and overlap, cable layback and vessel speed.

The report will include a narrative interpretation of the seabed within the survey area and any discrete features based on acoustical reflection of the seabed. The interpretation shall include a description of features, their relative position within the survey area, the dimensions of discrete features, and surface area of scattered targets. The report will include a figure consisting of a sonar mosaic of the sonar lane segments comprising the survey area fitted to a standard page. The mosaic figure shall be an original print (no photocopies). The location of seabed features referred to in the text, including any small or large acoustical targets, scattered or individual, should be shown in a separate figure, consisting of a diagram of the survey area and proposed well locations.

The EPA will not accept previously prepared geophysical survey reports for lease blocks in substitution for the live-bottom survey report described. Remote sensing data from other instruments such as echosounders, magetometers, subbottom profilers, and seismic data should not be included in the live-bottom survey report. Reports containing photocopies of acoustical imagery will not be accepted."

Part II.A.2 - *Penalties for violations of Permit Conditions*: Penalties for permit violations were revised per recent EPA regulations, as follows: 1) Civil penalty was changed from $25,000 to $32,500 per day per violation; 2) Administrative penalties for Class I violations were changed from a maximum of $10,000 to $11,000 per violation; 3) The maximum amount that can be assessed for any Class I penalty was changed from $25,000 to $32,500; and 4) the maximum amount that can be assessed from any Class II penalty was changed from $125,000 to $157,500.

Part III.A - *Monitoring Reports*: The following new language was added to clarify requirements for permittees that have a non-compliance of any permit limitation:

"If a non-compliance to any permit limitation occurs, the permittee must complete a monthly Non-Compliance Report for Permit Exceedances within seven days of the non-compliance and submit it with the quarterly DMR along with the entire laboratory results for all parameters, until such time as the facility returns to compliance. The Non-Compliance Report for Permit Exceedances shall include:

1. A description of the non-compliance and its cause,
2. The period of non-compliance, including dates and times,
3. The anticipated time the non-compliance is expected to continue (if it has not been corrected), and
4. Steps taken or planned to reduce, eliminate and prevent re-occurrence of the non-compliance."

Additionally, the following new language was included to clarify monitoring requirements:

"Additional Monitoring Requirements

1. For effluent monitoring, the permittee shall utilize an EPA-approved test procedure with a minimum level ("ML") which is lower than the effluent limitations. The permittee must utilize a standard calibration where the lowest standard point is equal to, or less than, the concentration of the ML. In accordance with 40 CFR § 122.45.45(c), effluent analyses for metals shall measure "total recoverable metal."

2. The permittee shall report the analytical results on the DMR, as follows:

a. Report for maximum daily, monthly or quarterly effluent limitation (or if no limitation applies but samples are collected during the reporting period):
   i. The maximum value of all analytical results, if the maximum value is greater than the ML; or
   ii. For No discharge/no data (e.g., not quantifiable) report "NODI (Q)", if the maximum value of all analytical results is greater than or equal to the laboratory's minimum detection limit (MDL), but less than the ML; or
   iii. Report "NODI (B)" (below detection level), if the maximum value of all analytical results is less than the laboratory's MDL.

b. Report for average monthly or quarterly effluent limitation (or if no limitation applies but samples are collected during the quarterly reporting period):
   i. As directed for maximum effluent limitation, if only one sample is collected during the monthly reporting period; or
   ii. The average value of all analytical results where 0 (zero) is substituted for NODI (B) and the laboratory's MDL is substituted for NODI (Q), if more than one sample is collected during the reporting period.

c. Report an attachment to the DMR form for each value reported under paragraphs 2.a and 2.b:

   i. The number or title of the approved analytical method, preparation procedure utilized by the laboratory, and MDL or ML of the analytical method for the pollutant available under 40 CFR Part 136:
   ii. The laboratory's MDL for the analytical method computed in accordance with Appendix B of 40 CFR Part 136, the standard deviation (S) from the laboratory's MDL study, and the number of replicate analyses (*n*) used to compute the laboratory's MDL; and
   iii. The lowest calibration standard (i.e., the ML, or lower value)."

Part II.B - *Permit Modification*: The following new language was added to the permit to address requirements of CWA Section 306(d):

"2. In accordance with Section 306(d) of the Clean Water Act, effluent limitations based on standards of performance for new sources in this permit shall not be made more stringent during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of Section 167 and/or 169 of the Internal Revenue Code of 1954, whichever

period ends first. The provisions of Section 306(d) do not limit the authority of EPA to modify, or alternatively revoke and reissue, the permit to require compliance with a toxic effluent limitation promulgated under Best Available Technology (BAT) or toxic pollutant standard established under 307(a) of the Act, or to modify, as necessary to assure compliance with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Act, if the effluent standard or limitation so issued or approved:

a. Contains different conditions or is otherwise more stringent than any conditions in the permit; or

b. Controls any pollutant or disposal method not addressed in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

Note: Conditions of the permit section do not apply if EPA proposes/promulgates a different and applicable New Source Performance Standard (NSPS) prior to "start of construction" for any new sources, as defined in 40 CFR Section 122.29(b)(4) or 125.83. In such case, this permit shall be modified to comply with the requirements of such new NSPS."

Part IV.B - *Best Management Practices/Pollution Prevention Plan*: The reference 40 CFR Part 125, subpart K was corrected by replacing it with 40 CFR §122.44(k). Also, language was added requiring operators to submit a certification statement within one year from the effective date of coverage that the Best Management Practices (BMP) Plan has been developed and is being implemented. Lastly, a change was made regarding the minimum number of days in which operators must amend the BMP Plan in the event operations at the facility increase the amount of discharge of NAF-waste streams controlled by BMPs: fourteen days was replaced with 30 days, in order to allow more time to obtain the necessary approval for the amendment(s).

Part V.A.12 - *Sampling Protocol for Stock Drilling Fluid Sediment Toxicity Test, Drilling Fluid Sediment Toxicity Test and Biodegradation Rate Test*: This is a new provision that was added which specifies the sampling protocol for determining compliance with the drilling fluid sediment toxicity test ratio and biodegradation rate ratio limitations in the permit.

Part V.B.- *Definitions*: The following changes were made:

i. The definition for "garbage" was modified to include a reference to food waste.

ii. The definition for "No Observable Effect Concentration" was added.

iii. The definition for Produced Water was revised by adding the sentence - "Produced water also includes any wastewater generated during separation and processing operations or any chemicals added downhole, subsea, or during separation and processing operations."

iv. The definitions for "Act," "Administrator," "Annual average," "Average Monthly Discharge Limitation," "Average Daily Limitation," "Daily Average Discharge," "Daily Maximum," and "Grab Sample" were deleted since they are already defined in Part II of the permit.

2. Public Comments

The public notice of the proposed reissuance of EPA Region 4's general permit for Offshore Oil and Gas Activities Number GMG460000 (formerly NPDES Permit No. GMG280000) was published at 69 Federal Register (FR) 1743 (dated January 12, 2004) and in four local newspapers in the coastal Gulf of Mexico area. The announcement included notification regarding the Region's intent to hold three public hearings in coastal cities in the Gulf of Mexico area, as well as information on how to receive copies of the proposed NPDES general permit, the permit fact sheet and the draft Ocean Discharge Criteria Evaluation (ODCE). The public hearings were held on March 16, 2004 in Biloxi, MS, on March 17, 2004 in Gulf Shores, AL, and on March 18, 2004 in Pensacola, FL. EPA received comments on the proposed general permit, the fact sheet, the ODCE, and the draft Supplemental Environmental Impact Statement (SEIS) (69 FR 7216 dated February 13, 2004). Comments received during the comment period were considered in a formulation of a final determination regarding Region 4's final action on the reissuance of NPDES General Permit. A summary of only the permit-related comments are summarized below. Other comments on the draft SEIS and draft DOCD were received by Region 4 and taken into consideration in the formulation of the Region's final decision on reissuance of the general permit and are part of Region 4's administrative record. Refer to Region 4's Notice of Availability for the Final SEIS at 69 FR 52668 (Dated August 27, 2004).

Comments from the **Department of Interior, Minerals Management Service**

Comment 1: The section subtitled, "Exclusion of Non-Operational Leases" should be modified to change the information that must be submitted to EPA regarding leases which have been non-operational. The language currently imposes a requirement on the operator to submit information to MMS which is not required under MMS regulations. According to the definition given for non-operational leases, a lease which has not had any discharges in the last two years is considered "non-operational." This section goes on to state that a request for coverage under the general permit or an individual permit will not be accepted until the operator prepares and submits a new Exploration Plan (EP) or Development Operations Coordination Document (DOCD) to MMS. However, this does not take into account leases which may have had any discharges in the last two years, but have previously approved EP's or DOCD's with remaining wells not yet drilled. Under MMS regulations, there is no time limit on the drilling of approved wells. Once the EP or DOCD is approved, as long as the same Outer Continental Shelf (OCS) lease is in effect and there are no substantive changes to the proposed wells, i.e., the surface and bottom hole locations remain the same, then the wells may be drilled without the submittal of any additional EP of DOCD information. To avoid a situation where the EPA permit imposes requirements on MMS to review plans we would not otherwise require, the language should be amended to allow the operator to either submit the new EP or DOCD or submit proof (such as an MMS approval letter) that MMS has previously approved their EP of DOCD.

Response: The language was modified to require operators with general permit coverage, but which have not had discharges with a two year period, to submit to EPA either a new EP or

DOCD, or alternatively, submit documentation (such as an MMS approval letter) that MMS previously approved their EP or DOCD.

Comment 2: The reference to MMS' Notice to Leasees (NTL) is incorrect and not-up-to-date. This language should be reworded as follows: "MMS live bottom survey in accordance with MMS NTL 2004-G05, *Biologically Sensitive Areas of the Gulf of Mexico*, or most current MMS guidelines for live-bottom surveys and reports, including facilities in less than 100 meters depth in the Eastern Planning Area. Information obtained in compliance with NTL No. 2003-G17, *Information Requirements for Exploration Plans and Development Operations Coordination Documents, Appendix C*, may be used in lieu of photo documentation. Medium-resolution (side-scan sonar) benthic imaging of the area within 1000 meters of the discharge point, shall be obtained using guidance in NTL No. 98-20, *Shallow Hazards Requirements*."

Response: Change made.

Comment 3: The subsection entitled, "Toxic Compounds (including compounds Used in Subsea Operations)," requires operators to obtain approval from EPA before using potentially toxic compounds. Note that the requirement to submit information on potentially toxic compound is similar to information contained in various MMS NTLs. MMS' NTL 2000-G21, Appendix E, requires operators to submit information on toxic compounds. In order to cover every possible scenario that could evolve during drilling, the typical response received by MMS for this requirement was the submittal of standard, comprehensive lists of all compounds that might ever be used. Originally, the list contained useful information about the identity of the chemicals used. However, it did not provide specific information on discharge characteristics. NTL 2000-G21 was modified and replaced with NTL 2003-G17, which requires operators to report quantities of wastes streams, rather than individual chemical additives. MMS also has conducted a study entitled, "Deepwater Program: Literature review, Environmental Risks of Chemical Products used in Gulf of Mexico Deepwater Oil and Gas Operations" (MMS 2001-011). This study evaluated the types and quantities of chemicals used and transported, and identified any that would be a risk to the environment through typical use or accidental spill.

Response: The permit was revised to require operators to only submit toxicity information pertaining to chemicals used in subsea operations.

Comment 4: The section of the fact sheet subtitled, "Use of High Resolution Acoustic Data in Lieu of Documentation," should be updated to include current MMS NTL requirements. Specifically, NTL no. 2002-G08, *Information Requirements for Exploration Plans and Development Operations Coordination Documents*, should be replaced with NTL No. 2003-G17, *Guidance for Submitting Exploration Plans and Development Operations Coordination Documents, Appendix C*. Also, the phrase "or most current MMS guidelines," should be inserted after the "NTL No. 98-20, *Shallow Hazards Requirements*," in order to assure operators use the most current MMS version of this requirement.

Response: Corrections and clarification regarding these requirements were incorporated.

Comments from **Florida Department of Environmental Protection, Coastal Management Program Office**

Comment 5: Florida is concerned that EPA's capability to enforce discharge requirements may be adversely affected by reducing the frequency of Discharge Monitoring Report (DMR) submittals from monthly to quarterly.

Response: Reducing the frequency of DMR submittals will have no impact on EPA's capability to enforce permit requirements. Information to be included on the quarterly DMR will include sufficient analytical and toxicity test results to determine compliance.

Comment 6: Florida supports the requirement for operators to participate in a Seabed Survey. If available, results of the monitoring required under the EPA Region 6 General Permit should be discussed in the Final Supplemental Environmental Impact Statement (SEIS). In addition, Florida requests the opportunity to review results of monitoring conducted in both Regions 6 and 4.

Response: EPA Region 4 will make the results of the Seabed Study, per this general permit, available to all interested parties. Florida will have to contact EPA Region 6 to review their results.

Comment 7: Florida is concerned that a requirement to monitor only once per week will not be an accurate test of "Free Oil" for drilling fluids and cuttings. Since all other Free Oil tests are to be conducted on the day(s) of discharge, drilling fluids and cuttings should be monitored on the day(s) of discharge as well.

Response: The permit requires that discharges of water-based drilling fluids, drill cuttings, deck drainage, well treatment fluids, completion fluids and workover fluids, and miscellaneous waste streams meet the requirements of "no Free Oil." A review of DMRs indicates that operators have consistently been in compliance with this requirement for discharges of water-based drilling fluids and drill cuttings; therefore, EPA feels a reduction in monitoring frequency is justified.

Comment 8: EPA should not approve the use of the General Permit and issue a letter notifying an applicant of the General Permit Coverage number until Florida has completed its Coastal Zone Management Act review of the plan for which General Permit coverage has been requested.

Response: Florida Department of Environmental Protection's Coastal Office is provided the opportunity to comment to the Mineral Management Service on Exploration Plans or Development Production Plans for proposed drilling activities in the Gulf of Mexico. Upon final approval from MMS, operators are issued a Notice to Drill document. The permit was revised to require operators submit proof that MMS has approved either the Exploration Plan or Development Production Plan (e.g., a copy of MMS's Notice to Drill) as part of the Notice of Intent requirement in the Region 4 General Permit. In doing so, EPA will be assured that the Florida Coastal Programs Office has communicated all potential concerns regarding drilling operations prior to granting coverage to operators under the Region 4 General Permit.

Specifically, Part I.A.4 (m) of the permit contains the following item that must be submitted in the Notice of Intent to be covered under the General Permit:

> "m. a copy of MMS's authorization/Notice to Drill Permit (e.g, a copy of an MMS signed and approved Application for Permit to Drill (APD) will meet this requirement)"

Comment 9: EPA should require fate and effects monitoring geared to supplement studies currently being conducted.

Response: The permit was revised to include the following language under Part III.D.3:

> "The purpose of the study is to determine the fate, transport, and effects of Synthetic-Based Drilling Fluids (SBFs), and to supplement previous studies regarding the discharge of SBFs from offshore oil and gas drilling locations."

Comment 10: EPA should stipulate that the SBF cuttings limitation will be re-examined when the identified studies are complete, and the General Permit revised, as needed.

Response: The permit was revised to include the following reopener language in Part III.D.3, which specifically pertains to the result/findings from the Region 4 Seabed Survey:

> "Based on results of the study, EPA may reopen the permit to include more stringent effluent limitations for SBFs adhered to drill cuttings."

Comment 11: EPA should continue ongoing consultation with the state on the evaluation of coverage of SBF cuttings.

Response: EPA will forward tests results from the Region 4 Seabed Survey to FDEP's Coastal Programs Office as they become available.

Comment 12: The **United States Fish and Wildlife Service field office in Panama City, FL** commented that a direct link between the proposed discharges and resources whose protection is entrusted to the Service is not evident with the information currently available. The monitoring described for the discharges is a positive step in ensuring information is available to confirm this assumption. Monitoring of the receiving system in addition to that defined in the NPDES permit is essential to ensuring protection of environmental quality and biotic integrity. Although acute and, to a lesser extent, chronic toxicity are addressed preliminarily in the permit described, investigation into possible more subtle impacts is highly recommended. Concentrations of the proposed analytes to be measured in the effluent should also be examined in receiving system sediments and biota. Particular interest should be focused on determining the amount of food web accumulation that may be occurring for some analytes, such as heavy metals. Investigation into the effects that these discharges have on biodiversity and biotic composition in the immediate receiving environment is also highly recommended.

Response: The parameters of concern are heavy metals (i.e., arsenic, chromium, copper, cadmium, mercury, lead and zinc) associated with barite, which is used as a weighting additive for both water-based and non-aqueous (including synthetic-based) drilling fluids. For clarification, offshore oil and gas drilling operations typically start with using water as the drilling fluid. Barite is added, as needed, to the water. Depending on the depth of the drilling, water-based drilling fluids are replaced with non-aqueous drilling fluids. Region 4's general permit for offshore oil and gas extraction operations addresses the discharge of water-based drilling fluids and other wastewaters, as well as the discharge of the relatively small amount of non-aqueous drilling fluid which adheres to drill cuttings. The fate, transport, and environmental impact of metals found in barite has been studied since the early 1990's, when EPA began rulemaking for discharges from offshore drilling operations. The amount of barite added to, and thus the amount of heavy metals discharged in, the drilling fluid depends on the characteristics of the rock being drilled. EPA Region 4 addresses the discharge, fate and transport of certain metals found in barite by including effluent limits, monitoring requirements and toxicity testing requirements for both water-based and non-aqueous drilling fluids in the general permit coverage. EPA feels the effluent monitoring requirements, effluent limits, and other permit conditions are sufficient to ensure the water quality in the vicinity of the discharges does not adversely impact aquatic life and the surrounding biota. The effluent limits and permit conditions are based on EPA's technology-based effluent guidelines for synthetic-based drilling fluids (SBFs), which were promulgated on January 22, 2001 (66 FR 6850). Based on EPA's analysis of the available information during rulemaking, it was determined that the limitations set forth in the effluent guideline would not cause the water quality in the Gulf of Mexico to exceed Federal water quality criteria. Regarding further analyses of sediments, EPA addressed the environmental impact of SBF muds and cuttings on benthic communities in the documents entitled, "Final Environmental Impact Statement - National Pollutant Discharge Elimination System Permitting for Eastern Gulf of Mexico Offshore Oil and Gas Extraction" (EPA 904/9-98-003, dated August 1998). Based on available data at that time, EPA concluded that it is possible for drilling fluids and drill cuttings, which contain heavy metals, to be widely dispersed over large areas. However, sediments studies showed that these metals are present in relatively low concentrations and the bioavailability is low; therefore, EPA believes that the potential for significant adverse impact to benthic bioa is minimal due to presence of trace metals in barite drilling fluids.

Comment 13: One commenter stated that as a result of the low temperatures encountered in flowlines and well risers in deepwater environments, the subsea and downhole injection of hydrate inhibitor chemicals has become increasingly necessary to prevent formation of hydrates. Hydrates are a family of ice-like solid compounds formed by complexing of water and hydrocarbons under conditions of low temperature and elevated pressure. Such compounds in solid form can cause blockages in wells and flowlines, causing cessation of flow. Among the common hydrate inhibitor chemicals employed are monoethylene glycol and methanol. Such chemicals, injected subsea or downhole for hydrate inhibition, are miscible with produced water. In some instances, it is practical to recover the hydrate inhibitor chemical by evaporation and distillation, thereby separating the inhibitor from the produced water and allowing it to be recycled. One such process used for reclaiming monoethylene glycol evaporates the produced water into a distilled water stream separate from its residual salts previously dissolved in the brine

in its natural state. Disposal of the produced water thereby necessitates the recombination of condensed water vapor with the residual salts to reconstitute the produced water by re-dissolving the salts prior to discharge as produced water. Since glycol reclaiming is a relatively new process, previous general NPDES permits do not cover this type of discharge. In order to account for the discharge of reconstituted produced water, the definition of produced water should include any chemicals added downhole, subsea, or during separation and processing. Additionally, the definition should state that produced water may either be in its normal state as a solution of water and salts, or reconstituted by re-dissolving in water the residual salts separated from produced water in the facility processing system.

Response: EPA-Region 4 agrees; change made.

A Committee representing the Offshore Oil and Gas Industry [the Offshore Operators Committee (OOC)] submitted comments 14 - 68.

Comment 14: In the Permit Summary section, a correction should be made to the terminology used for non-operational leases. Specifically, replace the word “leases” with the word “facilities”, since Region 4 issues permit coverage by facility rather than by lease; there can be multiple facilities on the same lease. Also, as currently worded, well templates could be considered “non-operational.” These structures have no normal point source discharge, yet need to maintain permit coverage for emergency construction or workover work. Lastly, add the words “and MMS” to the last sentence, since both the EP or DOCDs are also submitted to MMS.

Response: Changes made.

Comment 15: The subpart, “Conclusions Regarding the Supplemental Environmental Impact Statement on Biological Communities in the Coastal Shelf and Shelf-Break Zone” of the fact sheet and the third paragraph under the section subtitled “Authorization” should be corrected to reflect that the Draft Supplemental EIS finds no adverse impact from discharge of synthetic-based drilling fluids adhered to drill cuttings (SBFs) in areas under Region 4's jurisdictional area in the Central Planning Areas seaward of Mississippi and Alabama state waters, as well as water depths greater than 200 meters in the Eastern Planning Area. Also, correct typographical errors.

Response: Changes made.

Comment 16: The OOC strongly recommends that written notification of coverage from EPA-Region 4's Regional Administrator not be required. We believe this is contrary to the intent of general permits and will add a layer of burden to both the industry and EPA. Our biggest concern is a scenario where a drilling rig is waiting on notification from EPA to begin discharge. It is difficult for us to see any benefits in this requirement, and it has a potentially large downside.

Response: Written notice from EPA is necessary in order to assign an NPDES general permit number and to maintain accurate records for compliance purposes. Typically, coverage is granted within 14 business days of a request for coverage.

Comment 17: The language in subpart entitled, “Operations Excluded” should be corrected to indicate that the permit excludes leases under moratorium, rather than “operators with leases.” Also, clarify that permit coverage will not be extended for non-operational facilities or wells, until such time that an EP or DOCD is submitted to MMS and EPA.

Response: Changes made. The language further clarifies that operators with non-operational facilities must either submit a new EP or DOCD or submit documentation (such as an MMS approval letter) that MMS has previously approved their EP or DOCD.

Comment 18: Update NTL documents in “Notification Requirements” section.

Response: Changes made.

Comment 15: Correct “Notice of Intent” subsection of the permit to agree with the language in subsection “Intent to be Covered by a Subsequently Issued Permit,” which indicates that EPA must receive Notices of Intent (NOIs) prior to the expiration date of the permit. Also, delete the requirement to receive EPA notification prior to coverage.

Response: EPA feels it is necessary to receive NOIs before the expiration date of the permit in order to process the NOI information prior to the expiration of the permit. It usually takes approximately 5 -10 business days to process an NOI. Additionally, for compliance reasons, written notice from EPA is necessary regarding the effective date of coverage; however, the permit was changed to allow coverage as of the date of the postmarked date of the NOI. EPA will notify operators of any NOI deficiencies or termination within 21 days of the receipt date of the NOI.

Comment 19: Clarify that the certification statement for the “No Activity List” must be signed in accordance with the “Signatory Requirement “ section in Part II, rather than by an official of the company.

Response: Change made.

Comment 20: Correct typographical errors in the subsection entitled, “Non-Operational Facilities.” Also, clarify that permit coverage is granted by facility, rather than by lease.

Response: The typographical errors were corrected. Also, since the permit covers facilities, not leases, the language was modified to indicate that non-operational or planned facilities (not leases) are only eligible for coverage under this general permit after an approved Exploration Plan or approved Development Operational Coordination Document is submitted to EPA.

Comment 21: There is disagreement between the language pertaining to the NOI deadline for subsequent coverage in the “Intent to be Covered by a Subsequently Issued Permit” section and in the “Duty to Reapply” section. Also, the requirement for operators to resubmit their information under the “Notice of Intent” requirements is unnecessary. Re-submission of data already

provided to EPA is not productive for operators or EPA. Submittal of a listing of covered facilities and their permit numbers should be adequate for continuing permit coverage. The language should be changed to state that if a permittee provides notification in accordance with the "Intent to be Covered by a Subsequently Issued Permit" requirements prior to the expiration of the permit, then coverage is granted under the subsequent permit and no further notification is required.

Response: Since the "Duty to Reapply" language is standard for all NPDES permits, the language in the "Intent to be Covered by a Subsequently Issued Permit" section was changed by adding the statement: "NOTE: For this general permit, the requirement to notify no later than the expiration date of the permit supersedes the deadline stated in Part II.D.11 (Duty to Reapply)." Also, EPA believes that permittees should be required to submit a NOI for each new general permit issued. Therefore, EPA does not agree with the request to allow coverage under a subsequent general permit without submission of a NOI once the subsequent permit comes effective, because doing so would not allow permittees to have knowledge of any new requirements that may be included in a reissued general permit.

Comment 22: The requirement to submit toxicity testing laboratory reports along with the monthly DMRs should be changed to only require these laboratory reports to be maintained with other NPDES records at the facility. The reports can be made available during site inspections.

Response: The permit was changed to require a summary of the toxicity testing laboratory results be submitted with DMRs. Full laboratory reports must be retained onsite and submitted in the event of non-compliance.

Comment 23: The permit limit for the maximum hourly discharge rate of water-based drilling fluids should include an exemption for water-based drilling fluids discharged prior to the installation of the marine riser. Water-based drilling fluids discharged prior to the installation of the marine riser are categorized as "miscellaneous dischargers" and due to operational considerations (minimum flow rates needed to drill pilot hole to set large diameter casing such that a marine riser can be installed) may exceed this limitation. Typically, drilling fluids used prior to installation of the marine riser are seawater gels.

Response: Change made.

Comment 24: The language pertaining to the requirement to maintain a drilling fluids inventory should be modified to clarify that the records should reflect the "usage" of the chemicals. Also, since drilling muds are not actually "added downhole," this phrase should be deleted. Lastly, since drilling operations often occur from mobile offshore drilling units (MODU), and such do not remain on location once the well is finished, the requirement to have records retained "on-site" should be changed to require records to be keep at an alternate land-based location.

Response: Changes made.

Comment 25: The monitoring requirement for “Oil Content” for drilling fluids should be deleted. This can be deleted with no reduction in monitoring/limitations. The prohibition of waste oil and diesel oil in drilling fluid already exists in the permit.

Response: Change made.

Comment 26: Clarify that the confirmatory test for the Reverse Phase Extraction (RPE) test method is the gas chromatography/mass spectrometry (GC/MS), and that the GC/MS may be performed once per week during drilling in lieu of using the RPE test. 40 CFR Part 435 states in part that: “The results from the GC/MS compliance assurance method (Appendix 5, subpart A of this part) shall supercede the results of the RPE...” This being the case, if an operator chooses to perform only the GC/MS test prior to running the RPE test, then the results of the RPE become meaningless, i.e., a wasted exercise. The operator should have the option of performing either EPA approved method.

Response: The permit was changed to allow operators an option to test cuttings for Formation Oil once per week, prior to discharge, using the GC/MS method.

Comment 27: The permit requires toxicity test results be reported on the monthly DMRs. This requirement should be changed to allow operators to report toxicity test results as “Pass/Fail.” Reporting of individual weekly results will overwhelm the DMR. Summary reporting through Pass/Fail should provide adequate information. Also, the permit should be changed to allow for submission of quarterly DMRs.

Response: Change made.

Comment 28: The language pertaining to the Drilling Fluid Sediment Toxicity Ratio should be modified to allow the limit to be reported as a daily average value, rather than a daily maximum value. Also, the equation for calculating the sediment toxicity ratio should be revised to allow the reference drilling fluid to be either the C_{16}-C_{18} internal olefin (IO), C_{12}-C_{14} ester or the C_8 ester.

Response: 40 CFR Part 435 states that the Drilling Fluid Sediment Toxicity ratio “shall not exceed 1.0." The guidelines do not specify the sample type to determine compliance with this limit. Due to data submitted by the industry showing the variability of results for both the Sediment Toxicity Test and the Biodegradation Test, EPA-Region 4's current interpretation of this language is that the value for the ratio may be based on more than one grab sample; therefore, a sampling protocol was included in the permit which requires operators to average up to three test results for compliance purposes. Also, the permit was modified to allow the use of the C_{16}-C_{18} ester or C_8 ester as the reference fluid.

Comment 29: The permit should change the analytical method for determining the Drilling Fluid Sediment Toxicity Ratio from “ASTM method no. E-1367-92" to “Modified ASTM method no. 1367-99.” Also, the sampling frequency should be changed from “once per month” to “at least once per month,” in order to allow operators to determine compliance based on more than one

sample, if necessary. The listed ASTM method no. E-1367-92 test is an older publication of the method and no longer a current ASTM standard; it has been superceded by ASTM method no. 1367-99. This sediment toxicity test should be listed as "modified" tests as the analytical procedures described in 40 CFR Part 435, subpart A, Appendix 3 and Appendix 8 are slightly different from the original ASTM method no. E-1367-92 or E 1367-99. The Appendix 8 reference needs to be added as well since it applies to the test protocol.

Response: The permit reflects the test methods specified in the most current version of 40 CFR Part 435. The phrase "or EPA approved method" is included after "ASTM E-1367-92" in anticipation of EPA Headquarters revising the effluent guidelines in the future to update this and any other applicable test methods. Regarding the number of samples to determine compliance, the sampling frequency was changed to "up to two grab samples per month."

Comment 30: In accordance with 40 CFR Part 435, the language regarding the Drilling Fluid Sediment Toxicity Ratio for non-aqueous-based drilling fluids (NAFs) should be revised to include C_{12}-C_{14} ester or C_8 ester. Also, the sampling frequency should be "at least once per well at the end of drilling" rather than just "once per well..."

Response: The change was made regarding the inclusion of the C_{12}-C_{14} ester or the C_8 ester. Also, the permit was changed to allow compliance with the Drilling Fluid Sediment Toxicity Ratio to be based on "up to two grab samples per month."

Comment 31: The permit language pertaining to the Drilling Sediment Toxicity Ratio for non-aqueous-based drilling fluids (NAFs) should be revised to include an exemption for high temperature wells. Specifically, the ratio should be reported as a daily average value not to exceed 1.25. EPA Headquarters has acknowledged the temperature limitation of ester/IO blends and the need for special "high temperature well" provisions such that pure C_{16}-C_{18} based fluids (or their equivalents) can be used. The offshore oil and gas industry work group has two ongoing projects to document the temperature limit of ester/IO blends and to identify the number and depths where these wells exist in the Gulf of Mexico. This information can be provided to EPA when completed.

Response: No change was made. The permit may be modified in the future to include EPA Headquarters policy regarding this exemption.

Comment 32: The language pertaining to the "Base Fluid Retained on Cuttings" should be modified to clarify that 40 CFR Part 435, subpart A, addendum B of Appendix 7 allows operators an option to implement specific Best Management Practices (BMPs) for NAFs, thereby resulting in reduced monitoring requirements for this parameter.

Response: Change made.

Comment 33: The language pertaining to the Base Fluid Sediment Toxicity Ratio should be modified to show that the reference base fluid can be either the C_{16}-C_{18} IO, the C_{12}-C_{14} ester, or

the C_8 ester (See 40 CFR Part 435, subpart A, Appendix 8.). Also, the permit should allow the averaging of toxicity tests results for multiple samples within a three-month period, in order to reduce the test variability associated with ASTM method no. E-1367-92.

Response: The permit was changed regarding the use of either the C_{16}-C_{18} IO, the C_{12}-C_{14} ester, or the C_8 ester as the reference base fluid. Also, the permit was changed to allow compliance with the Base Fluid Sediment Toxicity Ratio to be based on test results of up to two grab samples.

Comment 34: Correct typos regarding the parameter - Biodegradation Rate Ratio; the word "rate" should be deleted from the parameter name, as well as the associated permit language stating the limit. Also, the equation for calculating the biodegradation rate ratio should be modified to replace the word "cumulative" with "% theoretical." Lastly, the permit should allow averaging of toxicity test results from multiple samples tested within a three-month period, in order reduce the test variability associated with ASTM method no. E 1367-92.

Response: The parameter name was corrected to read, "Biodegradation Rate Ratio." However, the language pertaining to the permit limit was unchanged, since it is the same as the language in 40 CFR Part 435.13, which states, "Biodegradation rate ratio shall not exceed 1.0." Likewise, the equation in the permit for determining the biodegradation rate ratio remains unchanged since it is the same as what is required in footnote 7 of 40 CFR Part 435.13. The permit was changed, however, to allow compliance with the ratio to be based on test results of up to two grab samples.

Comment 35: Regarding the stock limitations for NAFs, the permit should be modified to allow a permittee or supplier, to substitute for, or blend, stock base fluids that are materially the same into their drilling fluids. Doing so will ensure an adequate supply of NAFs and it also will provide for suppliers to adjust a base fluid system with compliant component base fluids to compensate for changes in the supply inventory without having to test a new blend for 275 days. It is known that various NAF suppliers make fluids that are materially the same, and that individually comply with the base fluid stock limitation. The ability to add new stock fluid to a "built" whole mud, or to mix two built whole mud systems will ensure optimal use of the mud systems and maximize the recycling capability of the systems.

Response: The permit was revised to allow the blending of previously compliant fluid blends provided that the new blended mud system meets stock limitations for Formation Oil, aqueous toxicity, and Drilling Fluid Sediment Toxicity. All test results will have to be submitted with the DMR.

Comment 36: The language pertaining to the number of grab samples for determining compliance with the oil and grease limits for produced water should be modified to allow the use of more than four grab samples. The current language poses a reporting problem where more than, or less than four grab samples are caught. The intent of the four-sample limit was to get a representative sample of the discharge. This may be accomplished with more, or less, than four samples. The proposed language corrects the problem with the four-sample limit and is consistent with the definition of "daily discharge" in Part V.B.21 of the permit.

Response: 40 CFR Part 435.11(s) contains a special definition for "Maximum for any one day" for oil and grease in produced water, which states that the maximum concentration for produced water is the concentration measured by the average of four grab samples collected over a 24-hour period that are analyzed separately. Alternatively, for BAT and NSPS, the regulations state that the maximum concentration allowed for oil and grease for produced water discharges may be determined based on the basis of physical composition of the four grab samples prior to a single analysis. The permit includes this special definition for produced water, which already includes the allowed alternative for complying with the daily maximum limit.

Comment 37: The definition of limiting permissible concentration (LPC) for determining compliance with the toxicity limits for Produced Water should be reworded to allow the LPC to be equal to either 0.1 times the lethal concentration to 50% of organisms (LC_{50}), or alternatively, the no-observed effect concentration (NOEC). The LC_{50} times 0.1 is an estimate of the chronic toxicity at the edge of the 100-m mixing zone. The 7-day NOEC is a short-term chronic toxicity estimate. While the OOC appreciates permit limits using the 96-hour acute test because it has a shorter turnaround time to assess test validity and receive compliance results, in many cases the 0.1 application factor is overly conservative and some permittees might prefer tests for chronic toxicity more directly using the 7-day method. OOC proposes that operators have the option of choosing either the 96-hour acute or 7-day chronic test for compliance. Either test result would be held as the compliance result for permit purposes. The chemically-treated water toxicity requirements already accommodate both acute and chronic testing.

Response: The toxicity testing requirements for Produced Water were included in the proposed permit based on the BPJ of the permit writer. Based on additional information regarding the nature and duration of produced water discharges obtained during the comment period, Region 4 has determined that the most appropriate toxicity test is the 7-day NOEC test (e.g., chronic toxicity test). Therefore, the permit was changed to revise the definition of LPC from "0.1 times the lethal concentration to 50% of organisms (LC_{50})" to "the no-observed effect concentration (NOEC)."

Comment 38: The permit requires operators who have not previously reported flows for Produced Water on the DMR to use the highest monthly average flow measured during the previous 12 months for determining the critical dilution from Tables 3 and 4 of Appendix B of the permit. This current wording would allow produced water discharge for 12 months prior to initiating toxicity testing. Toxicity testing should not commence in the month that produced water discharge commences, as the flow is not stable at that time. The language should be modified to allow toxicity testing to be delayed for three months in order for well flow to stabilize.

Response: EPA recognizes that the current language is unclear. The language has been modified to clarify that "facilities which have not previously reported produced water flow on the DMR shall use the *estimated value* of the monthly average flow for the first three months of produced water flow..." Using an estimation of flow for determination of the critical dilution until the flow is stabilized will ensure the effluent is being tested in a timely manner.

Comment 39: The language pertaining to submittal of toxicity testing laboratory reports with monthly DMRs should be changed to require the lab reports to alternatively be kept with NPDES records. Also, the language addressing the location of the samples (i.e., "at the nearest accessible location prior to discharge, or prior to combining with any other wastewaters") should be changed to require samples used for toxicity testing should be collected after the addition of any added substances, including seawater that is added prior to discharge, and before flow is split for multiple discharge ports. Sampling upstream of the introduction of seawater would not be representative of the discharge.

Response: The permit was changed to require operators to only submit a full, comprehensive laboratory report with each DMR in the event a toxicity test violation occurs. Otherwise, a summary of results must be submitted with each DMR. The sampling locations were also changed in accordance with the commenter's concern.

Comment 40: Delete the statement regarding the sampling location for the visual sheen test for deck drainage. Sampling is not performed for the visual sheen test.

Response: Change made.

Comment 41: The units for reporting the monthly volume of Deck Drainage should be changed from "barrels per day" to "barrels per month" to be consistent with the units in Table 1 of the permit.

Response: Change made.

Comment 42: The language pertaining to "Free Oil" for Well Treatment, Completion Fluids, and Workover Fluids should be clarified by deleting the word "and" in the second sentence. As written, it appears to require static sheen testing twice each day of discharge.

Response: Change made.

Comment 43: The permit language pertaining to the sampling requirements for Well Treatment, Completion Fluids, and Workover Fluids should be reworded to allow the daily maximum concentration for oil and grease to be based on either a single grab sample or the average of multiple grab samples collected at even intervals within 24 hours. Currently, the permit requires the average of four grabs collected within a 24-hour period. This poses a reporting problem where more than, or less than, four grab samples are caught. The intent of the four sample limit was to get a representative sample of the discharge. This may be accomplished with more or less than four samples. More flexibility regarding the number of samples to be taken to show compliance is consistent with the definition of "daily discharge" in Part V.B.21 of the permit.

Response: No change was made. Based on the best professional judgement (BPJ) of the permit writer, it is appropriate that the number of oil and grease samples for this type of discharge be the same as that required for complying with the daily maximum limit for Produced Water.

Comment 44: The permit should be modified to allow operators to commingle and treat sanitary and domestic waste in the same treatment unit.

Response: Change made.

Comment 45: The reference to food waste under the requirements for Domestic Waste (Part I.B.9) and the requirements for Rubbish, Trash and Other Refuse (Part I.C.4) should either be deleted entirely from the permit, or alternatively, just deleted from the requirements for Domestic Waste. Food waste is already regulated by the U.S. Coast Guard and there is no need to enforce Coast Guard regulations in this NPDES permit.

Response: The permit was modified to delete the reference to food waste from the permit provision for Domestic Waste discharges. Permit requirements for food waste will remain in the section for "Rubbish, Trash and Other Refuse."

Comment 46: The monitoring frequency for visual sheen for Miscellaneous Discharges should be changed to be consistent with the frequency in Table 1 of the permit.

Response: Change made.

Comment 47: The subheading "Miscellaneous Discharges of Freshwater and Seawater Which Have Been Chemically Treated" should be reworded to be consistent with the definition of "Treatment Chemicals" in the permit. Also, add an exemption for the toxicity testing requirements for operators that use minor and low toxicity scale inhibitors and scale cleaners associated with desalination units.

Response: The wording for the subheading was changed to read, "Miscellaneous Discharge of Freshwater and Seawater In Which Treatment Chemicals Have Been Added." Also, based on the information submitted from the industry regarding chemicals used to treat desalination units, EPA feels no exemption should be allowed for low toxicity scale inhibitors or cleaners.

Comment 48: Correct typographical errors regarding the critical dilution tables to be used for the toxicity requirements for "Miscellaneous Discharges of Freshwater and Seawater Which Have Been Chemically Treated." Also, the test method for determining the 7-day NOEC was omitted.

Response: Changes made.

Comment 49: The language in the section "Toxic Compounds (Including Compounds Used in Subsea Operations)" should be changed to require notification to EPA of only chemical compounds used in subsea operations where the use of new compounds are needed to safely utilize subsea and deepwater technologies. The products and chemicals used in conventional (i.e., not deepwater) oil and gas exploration and production operations were previously reported to EPA Headquarters (Reference: "Chemical Treatment of Produced Fluids in Offshore Oil and Gas Production System," initial report November. 1985 for the Offshore Operators Committee and

updated October 1989 for the American Petroleum Institute by C.M. Hudgins, Jr.). These were well understood and described by EPA in the development of the National Offshore Effluent Guideline and Limitations rule and should therefore not need to be resubmitted each time an operator submits an NOI or plans to use them.

Response: The permit was modified to require operators to notify the Water Management Director, EPA-Region 4, of any chemicals or compounds used in subsea operations which have not previously been evaluated by EPA Headquarters.

Comment 50: Regarding the requirement for operators to conduct a Cooling Water Intake Study, the permit should establish a de minimus rate of 5 MGD, below which facilities would be exempt from the study requirement. Data already supplied to EPA Headquarters shows very little impact from oil and gas facilities intakes below this rate. Additionally, mobile drilling rigs should be exempt from this requirement.

Response: EPA agrees that operators with a design average cooling water intake flow below 5 MGD should be exempt. However, operators of mobile drilling rigs should not be exempt, since some of these facilities have cooling water intake flows as high as 15-20 MGD.

Comment 51: The flow measurement requirements in Part II are mainly for wastewater and not applicable to drilling fluids and drill cuttings. The permit should contain an exception for volume measurements for drilling fluids and drill cuttings to meet the 10% accuracy requirement.

Response: EPA recognizes that Part II is standard language for all NPDES permits, and may not be applicable to all operations at offshore oil and gas facilities. However, an exemption from 10% flow accuracy requirement will not be granted for the measurement of flow of drill cuttings and drilling fluids. Compliance will be left to the enforcement discretion of EPA.

Comment 52: The permit should contain a phone number and email address for 24-hour reporting for convenience and completeness.

Response: The use of proper names is inappropriate in NPDES permits. The names, e-mail addresses, and phone numbers for the appropriate Offshore Oil and Gas EPA personnel can be obtained from the EPA Region website at: www.epa.gov/region4/water/permits/oil&gas.html.

Comment 53: The “Duty to Reapply” requirements in Part II.D.11 are not consistent with the requirement in the “Intent to be Covered Under a Subsequently Issued Permit” section of Part I. A.8.

Response: The language in Part II is standard for all NPDES permits and EPA recognizes that all requirements in Part II may not be applicable to offshore oil and gas operations. The permit was changed to state that requirements in Part I.A.8 supercede those in Part II.D.11.

Comment 54: The permit language defining “Permit Issuing Authority” in Part II.E.1 should be

deleted since it is not applicable to this general permit. Also, the definitions in Part II.E for "Director," "Act," "Grab sample," and "Calendar Day" should be deleted since these terms are defined in Test Procedures and Definitions section (Part V.A) of the permit.

Response: The language in Part II is standard for all NPDES permits and EPA recognizes that all requirements in Part II may not be applicable to offshore oil and gas operations. The permit was changed to state that requirements in Part V.A supercede those in Part II.E.

Comment 55: The definition for "maximum daily discharge" in Part II.E. should be modified to be consistent with the definition for "daily discharge" in the Test Methods and Definitions section in Part V.B. of the permit. Also, the definition for "maximum daily concentration" in Part II.E should be reworded to indicate that the maximum value to be reported is not the highest individual sample result within a 24 hour period, but rather the highest 24 hour average during the monitoring period.

Response: The language in Part II is standard for all NPDES permits and EPA recognizes that all requirements in Part II may not be applicable to offshore oil and gas operations. Notwithstanding this, EPA Region 4 does not interpret the definition of "maximum daily discharge" to be analogous to the definition for "daily discharge." Daily discharge is to be used to report the "Daily Average Discharge" limitation (also known as the monthly average). (See the definitions for Daily Average Discharge and Daily Discharge in the Test Methods and Definitions section in Part V.B. of the permit.) Likewise, "Maximum daily discharge" means the highest allowable individual grab sample collected within a calendar day, the results of which are used to report the "maximum daily concentration." Regarding the rewording of the definition for "maximum daily concentration," no change was made since this definition conveys EPA-Region 4's intent.

Comment 56: The definition for "Composite Sample" in Part II.E.6 should be deleted since no composite sampling is required in this permit.

Response: Since a reference is made to composite samples in the definition for "Daily discharge," no change was made.

Comment 57: The permit should be changed to allow operators to report sampling results on a quarterly basis, rather than requiring DMRs be completed on a monthly basis. Also, the permit should allow operators to use an alternative DMR form to be developed by the OOC. Monitoring data summarized on a quarterly DMR form will provide accurate data in a timely manner without compromising the intent of the permit and the Clean Water Act. Permit limits that are exceeded will continue to be reported within 24 hours as required by the permit (Part II.D.8). Since this permit now requires a separate outfall number for each discharge type, the DMR submittal for one facility is 11 pages long. In support of the Paperwork Reduction Act, a quarterly DMR would result with less paper being handled by the agency and the operator.

Response: EPA agrees. Operators will be required to submit quarterly DMRs which contain the highest quarterly and average quarterly values for most parameters. For toxicity test results, the

quarterly minimum and average value will be reported.

Comment 58: The reporting requirements in Part III.A requiring operators to immediately notify the Director upon cessation of discharge should be deleted. The Notice of Termination is already addressed in Part I.A.7.

Response: EPA views "termination" of discharge and "cessation" of discharge as two different events. It is possible for an operator to temporarily cease (i.e., suspend activity) to discharge but maintain coverage and not terminate coverage. No change was made regarding this request.

Comment 59: Regarding the Best Management Practices (BMP) plan requirements and the definition of Best Management Practice/Pollution Prevention (BMP3), replace the reference to 40 CFR 125 Subpart K with 40 CFR §122.44(k). Subpart K was never activated and was removed and reserved by final rule dated May 15, 2000, where it is noted that it has no regulatory effect citing that: "Subpart K was never activated and its original purpose is now better served by EPA's existing BMP provisions at 40 CFR § 122.44(k) and the accompanying guidance for developing and implementing BMPs." (See 65 Federal Register 30886). Additionally, the permit should allow an exemption for mobile offshore drilling units to develop a facility-wide BMP plan. Mobile offshore drilling units are temporary installations which should not be required to have a separate "entire facility" plan if they use a site specific BMP plan in conjunction with the discharge of NAF.

Response: The permit was corrected to include the appropriate reference for "Criteria and Standards for Best Management Practices Authorized Under Section 304(e) of the Act." EPA does not feel that mobile offshore drilling units should be exempt from developing a facility-wide BMP plan. The fact that these facilities are not permanent should have no bearing on procedures operators can develop to reduce the discharge of toxic pollutants.

Comment 60: The permit does not contain a definition of Cooling Water Intake Structure. The following definition should be included in the permit: "Cooling Water Intake Structure is a seawater intake of at least 5 MGD of which 25% is for cooling water purposes."

Response: The permit was revised to define Cooling Water Intake Structure as "a seawater intake with a design flow of greater than, or equal to 5 MGD of which 25% is for cooling water purposes."

Comment 61: The definition of "toxic pollutant" in the BMP Plan section of the permit should be deleted, since the term is already defined in Part II - Standard Conditions for NPDES Permits.

Response: No change made. The definition in the BMP Plan section supercedes the definition in Part II because for the purposes of developing the BMP Plan, "toxic pollutants" was expanded to include "any substance (that is not also a conventional or non-conventional pollutant) for which EPA has published an acute or chronic toxicity criterion, or that is a pesticide regulated by the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)."

Comment 62 The permit language regarding the requirement of operators to maintain information on discharges of NAF-cuttings should be corrected to show that the data is retained as part of NPDES records, rather than submitted in reports.

Response: No change was made since the language is the same as that contained in 40 CFR Part 435, subpart A, Addendum B of Appendix 7, which sets forth requirements for BMPs for NAF discharges and associated cuttings. (See item 6.5.4 of Appendix 7.)

Comment 63: Clarify that the time frame of "no later than one year from the effective date of coverage" to obtain certification of the BMP plan should only apply to facilities that are required to develop a BMP plan for the entire facility. This clarification is needed because the BMP plans for NAFs are highly dependent of what kind of mobile offshore drilling unit is available and selected to drill a particular well, which is often not known until a few months from starting to drill a well. A separate certification for the NAF BMP plan should be included, which could require that this plan be certified and implemented prior to the discharge of NAF drill cuttings. Doing so will make these BMP plans more equipment specific and detailed with regards to the particular mobile drilling unit and associated NAF processing equipment.

Response: No change was made since the language was adapted for use in general permits from 40 CFR Part 435, subpart A, Section 3.2 of Addendum B of Appendix 7, which sets forth the certification requirements for BMPs for NAF discharges and associated cuttings. The permit addresses modifications to the BMP plan based on any changes in the facility. EPA urges operators to obtain certification for generic BMPs, then amend the BMP plan as necessary.

Comment 64: The permit should allow more time for operators to amend the BMP plan when there is a change in the facility operations that increases the generation of NAF wastes. Fourteen days should be replaced with 30 days.

Response: Change made, since this does not conflict with the NAF BMP requirements in 40 CFR Part 435, subpart A.

Comment 65: The language pertaining to the approved methods for permit compliance for formation oil should be modified to include the phrase, "or most current EPA approved method" after the test method citation. Doing so would allow the use of an updated method if EPA issues an updated GC/MS test protocol as has been suggested with a direct final rule type action.

Response: Change made.

Comment 66: The definition of "Blow-Out Preventer Control Fluid" in the definition section of the permit needs to be modified in order to agree with the language in Miscellaneous Discharges section of the permit. Specifically, the phrase, "or subsea production wellhead assembly" should be deleted.

Response: Change made.

Comment 67: The wording for "daily maximum discharge" in the Definitions section of the permit should be changed to clarify that the concentration may be for a calendar day or 24 hour period, as defined under Part V.B.21 for "daily discharge." Also, replace "calendar day" with "calendar month" to clarify that this definition applies to all samples taken in a calendar month, and to a monthly limit.

Response: No change made; see EPA's response to comment no. 55, above.

Comment 68: The definition of "garbage" should be reworded in order to provide a better distinction between it and "domestic waste." "Garbage" should be defined as all kinds of food waste, wastes generated in living areas on the facility, and operational waste, excluding fresh fish and parts thereof, except dishwater, graywater, and those substances that are defined or listed in other Annexes to MARPOL 73/78.

Response: Change made.

Comment 69: **Marathon Oil Company** commented that the proposed permit does not provide a practical method to compensate for test variability and does not provide for use of either of the two pure reference non-aqueous drilling fluids mentioned in the SBF effluent guideline (promulgated on January 22, 2001). Industry is in no way asking EPA to deviate from the "letter and spirit of the SBF effluent guideline," but only provide a workable method to utilize the reference fluids described in these guidelines.

Response: EPA realizes that if pure IOs are needed in high temperature environments, the calculated ratio (reference IO divided by the pure IO) may be very close to the 1.0 limit. The permit was changed to address variability by allowing compliance to be based on the arithmetic average of up to two grab samples, and allows rounding of the tests results.

Comments from the **International Association of Drilling Contractors**

Comment 70: The current and proposed permits for the OCS portion of the Eastern Gulf of Mexico, as well as other existing permits, provide that: "any facility which operates and maintains a marine sanitation device (MSD) that complies with pollution control standards and regulations under section 312 of the Act shall be deemed in compliance with permit limitations for sanitary waste." In practice, this means that a properly functioning MSD certified by the U.S. Coast Guard under 33 CFR Part 159 will be subject to annual testing. We support this provision; however, in light of recent developments, we would ask that consideration be given to its further expansion.

Annex IV of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto (MARPOL 73/78) became effective on September 27, 2003. While the United States is not yet a party to Annex IV, the majority of the world's mobile offshore drilling units fleets are registered in nations that are States party to Annex IV. The regulations under Annex IV establish a process under which flag-States certify

MSDs as meeting standards established by the IMO. The standards established by IMO meet or exceed standards in 33 CFR Part 159. The U.S. Coast Guard has apparently already accepted that such foreign-certified MDSs comply with the pollution control standards and regulations under section 312 of the Act. We do not believe that the wording of the proposed permit or any existing permit needs to be changed. The acceptance of MSDs certified to IMO standards by a vessel's flag-State can either be reflected in a policy statement or enforcement guidance, provided it is made publicly available.

Response: Comment noted; no change is necessary.

Comment 71: Regarding "Uncontaminated Ballast Water," the U.S. Coast Guard and the EPA are currently cooperating in the development of ballast water treatment standards for controlling the spread of aquatic nuisance species. While no specific technology is currently under consideration as being mandated for use in the treatment of ballast water, several of the technologies that exist involve changing the physical and chemical properties of the ballast water prior to its discharge. Similar standards are also being developed by the IMO. As these technologies are employed, either in demonstration projects, or in compliance with future Coast Guard or IMO regulations, we believe that it will be necessary for the EPA to either provide a policy statement or enforcement guideline regarding the discharge of treated ballast water discharges. The premise of such guidance should be that otherwise uncontaminated ballast water would not be considered contaminated by physical or chemical treatment to control the spread of aquatic nuisance species conducted in accordance with standards developed by the U.S. Coast Guard and/or EPA.

Response: EPA will modify the general permit, as necessary, to comply with any applicable revised U.S. Coast Guard regulations that are more stringent than the conditions in the general permit.

Comment 72: The EPA Technical Development Document for "Uniform National Discharge Standard for Vessels of he Armed Forces" (EPA 821-R-99-001, April 1999) identified several discharges incidental to the normal operation of armed forces ships that are also discharges on commercial ships, including those subject to the proposed permit. The Technical Development Document further concluded that most of these discharges did not require additional control measures. (We would note that, for ship operations not covered by the oil and gas sector NPDES permits, most of these discharges are excluded from NPDES permit coverage by 40 CFR 122.3(a)). Such discharges include:

1. Cathodic Protection - The systems employed on ships (as well as fixed and floating platforms) subject to the permit are essentially identical to those of armed forces ships.

2. Chain Locker Effluent - Chain locker effluent is only discharged on those ships that anchor to maintain location and then is only discharged as the ship moves off location. It is not clear whether the permit applies at this time.

3. Controllable Pitch Propeller Hydraulic Oil - For purposes of safety and environmental protection, controllable pitch propellers are used on some vessels to maintain position relative to the borehole, particularly in deep water locations.

4. Hull Coating Leachate - The coasting systems employed on ships subject to the permit are essentially identical to those of armed forces ships; however, they are not renewed as frequently since speed and fuel efficiency concerns are not as great.

5. Rudder Bearing Lubrication - The systems employed on ships subject to the permit are essentially identical to those of armed forces ships.

6. Small Boat Engine Wet Exhaust - The small boat systems employed on ships subject to the permit are essentially identical to those of armed forces ships, but are generally confined to lifeboats and rescue boats. It is not clear whether the operation of such small craft in association with a fixed or floating facility subject to the permit is itself subject to the permit.

7.Underwater Ship Husbandry - It is occasionally necessary to clean portions of the underwater body of ships (as well as fixed and floating facilities) covered by the permit for maintenance, inspection (including inspections required by the U.S. Coast Guard), and to effect underwater repairs.

If the above described discharges are considered discharges under the permit, consideration should be given to including them in the list of miscellaneous authorized discharges subject to the limitations and exceptions contained in the proposed permit.

Response: The applicable guidelines are cited at 40 CFR Part 435, subpart A. These regulations do not pertain to ships. Therefore, the discharges of chain lock effluent, hull coating leachate, rudder bearing lubrication wastewater, and small boat engine wet exhaust do not apply to this permit. All the other wastestreams mentioned in your comment are currently covered as Miscellaneous wastes in the general permit.